Page 16, please delete line 3 (subtitle), and replace it with the following new line:

a23 (C) Molding in a magnetic field

JBH 9-27-01 **Page 16, please delete the ~~paragraph bridging~~ first full paragraph on page 16 ~~and 17~~, and replace it with the following new paragraph:**

If the green body is rapidly heated from room temperature to a sintering temperature, oil remaining in the green body reacts with rare earth elements to form rare earth carbides, resulting a24 in deterioration in magnetic properties. Thus, it is preferable to carry out an oil removal treatment by heating the green body at a temperature of 100-500°C and a vacuum degree of 13.3 Pa (10^{-1} Torr) or less for 30 minutes or longer. By this oil removal treatment, oil remaining in the green body is fully removed. Incidentally, as long as the oil removal treatment is within a temperature range of 100-500°C, it need not be conducted by a single, step, but may be conducted by a plurality of steps. Also, oil removal can be efficiently carried out[,] when a temperature-elevating speed from room temperature to 500°C is preferably 10°C/minute or less, more preferably 5°C/minute or less.

IN THE CLAIMS:

Please enter the following amended claims:

1. (Amended) A thin arc segment magnet having a thickness of 1-4 mm and made a25 of a rare earth sintered magnet having a main component composition comprising 28-33 weight % of R and 0.8-1.5 weight % of B, the balance being substantially Fe, wherein R is at least one rare earth element including Y, and T is Fe or Fe and Co, said arc segment magnet having an oxygen content of 0.3 weight % or less based on the total weight of the magnet, a density of 7.56

g/cm^3 or more, a coercivity iHc of 1.1 MA/m (14 kOe) or more at room temperature, and an orientation Br/4πI$_{max}$ of 96% or more in an anisotropy-providing direction at room temperature.

5. (Amended) A radially anisotropic, arc segment magnet having an inner diameter of 100 mm or less and made of a rare earth sintered magnet having a main component composition comprising 28-33 weight % of R and 0.8-1.5 weight % of B, the balance being substantially Fe, wherein R is at least one rare earth element including Y, and T is Fe or Fe and Co, said arc segment magnet having an oxygen content of 0.3 weight % or less based on the total weight of the magnet, a density of 7.56 g/cm^3 or more, a coercivity iHc of 1.1 MA/m (14 kOe) or more at room temperature, and an orientation [Br// / (Br// + Br⊥)] x 100 (%) if 85.5% or more at room temperature, said orientation being defined by a residual magnetic flux density Br// in a radial direction and a residual magnetic flux density Br⊥ in an axial direction perpendicular to said radial direction.

8. (Amended) A radially anisotropic ring magnet having an inner diameter of 100 mm or less made of a rare earth sintered magnet having a main component composition comprising 28-33 weight % of R and 0.8-1.5 weight % of B, the balance being substantially Fe, wherein R is at least one rare earth element including Y, and T is Fe or Fe and Co, said ring magnet having an oxygen content of 0.3 weight % or less based on the total weight of the magnet, a density of 7.56 g/cm^3 or more, a coercivity iHc of 1.1 MA/m (14 kOe) or more at room temperature, and an orientation [Br// / (Br// + Br⊥)] x 100 (%) of 85.5% or more at room temperature, said orientation being defined by a residual magnetic flux density Br// in a radial

direction and a residual magnetic flux density Br⊥ in an axial direction perpendicular to the radial direction.

11. (Amended) The method for producing a rare earth sintered magnet according to claim 10, wherein the molding in a magnetic field is compression molding, and the compressed green body preferably has density distribution of 4.3-4.7 g/cm^3 to provide a rare earth sintered magnet having a main phase composed of an $R_2T_{14}B$ intermetallic compound, wherein R is at least one rare earth element including Y, and T is Fe or Fe and Co.

12. (Amended) A method for producing a thin arc segment magnet having thickness of 1-4 mm and made of a rare earth sintered magnet having a main component composition comprising 28-33 weight % of R and 0.8-1.5 weight % of B, the balance being substantially Fe, wherein R is at least one rare earth element including Y, and T is Fe or Fe and Co, said arc segment magnet having an oxygen content of 0.3 weight % or less based on the total weight of the magnet, a density of 7.56 g/cm^3 or more, a coercivity iHc of 1.1 MA/m (14 kOe) or more at room temperature, and an orientation $Br/4\pi I_{max}$ of 96% or more in an anisotropy-providing direction at room temperature, said method comprising the steps of finely pulverizing an alloy for said rare earth sintered magnet to an average particle size of 1-10 μm in a non-oxidizing atmosphere; introducing the resultant fine powder into a mixture liquid comprising 99.7-99.99 parts by weight of at least one oil selected from the group consisting of a mineral oil, a synthetic oil and a vegetable oil and 0.01-0.3 parts by weight of a nonionic surfactant and/or an

anionic surfactant; subjecting the resultant slurry mixture to molding in a magnetic field; and carrying out oil removal, sintering and heat treatment in this order.

13. (Amended) A method for producing a radially anisotropic, arc segment magnet having an inner diameter of 100 mm or less and made of a rare earth sintered magnet having a main component composition comprising 28-33 weight % of R and 0.8-1.5 weight % of B, the balance being substantially Fe, wherein R is at least one rare earth element including Y, and T is Fe or Fe and Co, said arc segment magnet having an oxygen content of 0.3 weight % or less based on the total weight of the magnet, a density of 7.56 g/cm^3 or more, a coercivity iHc of 1.1 MA/m (14 kOe) or more at room temperature, and an orientation [Br// / (Br// + Br⊥)] x 100 (%) of 85.5% or more at room temperature, said orientation being defined by a residual magnetic flux density Br// in a radial direction and a residual magnetic flux density Br⊥ in an axial direction perpendicular to said radial direction, said method comprising the steps of finely pulverizing an alloy for said rare earth sintered magnet to an average particle size of 1-10 μm in a non-oxidizing atmosphere; introducing the resultant fine powder into a mixture liquid comprising 99.7-99.99 parts by weight of at least one oil selected from the group consisting of a mineral oil, a synthetic oil and a vegetable oil and 0.01-0.3 parts by weight of a nonionic surfactant and/or an anionic surfactant; subjecting the resultant slurry mixture to molding in a magnetic field; and carrying out oil removal, sintering and heat treatment in this order.

14. (Amended) A method for producing a radially anisotropic ring magnet having an inner diameter of 100 mm or less and made of a rare earth sintered magnet having a main

a28

component composition comprising 28-33 weight % of R and 0.8-1.5 weigh t% of B, the balance being substantially Fe, wherein R is at least one rare earth element including Y, and T is Fe or Fe and Co, said ring magnet having an oxygen content of 0.3 weight % or less based on the total weight of the magnet, a density of 7.56 g/cm^3 or more, a coercivity iHc of 1.1 MA/m (14 kOe) or more at room temperature, and an orientation [Br// / (Br// + Br⊥)] x 100 (%) of 85.5% or more at room temperature, said orientation being defined by a residual magnetic flux density Br// in a radial direction and a residual magnetic flux density Br⊥ in an axial direction perpendicular to the radial direction, said method comprising the steps of finely pulverizing an alloy for said rare earth sintered magnet to an average particle size of 1-10 μm in a non-oxidizing atmosphere; introducing the resultant fine powder into a mixture liquid comprising 99.7-99.99 parts by weight of at least one oil selected from the group consisting of a mineral oil, a synthetic oil and a vegetable oil and 0.01-0.3 parts by weight of a nonionic surfactant and/or an anionic surfactant; subjecting the resultant slurry mixture to molding in a magnetic field; and carrying out oil removal, sintering and heat treatment in this order.

28

IN THE ABSTRACT OF DISCLOSURE:

Please delete the present Abstract of the Disclosure and replace it with the following new Abstract of the Disclosure:

29

A thin arc segment magnet made of a rare earth sintered magnet substantially comprising 28-33 weight % of R and 0.8-1.5 weight % of B, the balance being substantially Fe, wherein R is at least one rare earth element including Y, and T is Fe or Fe and Co, which has an oxygen content of 0.3 weight % or less, a density of 7.56 g/cm^3 or more, a coercivity iHc of 1.1 MA/m

(14 kOe) or more at room temperature, and an orientation $Br/4\pi I_{max}$ of 96% or more in an anisotropy-providing direction at room temperature can be produced by using a slurry mixture formed by introducing fine alloy powder of the above composition into a mixture liquid comprising 99.7-99.99 parts by weight of a mineral oil, a synthetic oil or a vegetable oil and 0.01-0.3 parts by weight of a nonionic surfactant and/or an anionic surfactant.

929